

EPI Update for Friday, April 20, 2018
Center for Acute Disease Epidemiology (CADE)
Iowa Department of Public Health (IDPH)

Items for this week's EPI Update include:

- **No Iowa cases linked to multistate egg or lettuce outbreaks**
- **SHL identifies mcr-1 drug resistance gene**
- **April 21-28 is National Infant Immunization Week**
- **In the news: How your mindset determines your health**
- **In the news: Doctors battle drug-resistant typhoid outbreak**
- **Infographic: How vaccines strengthen your baby's immune system**
- **Meeting announcements and training opportunities**

No Iowa cases linked to multistate egg nor lettuce outbreaks

Iowa currently has no cases linked to the multistate outbreak of *E. coli* 0157:H7 associated with chopped romaine lettuce. Nor has Iowa had any cases associated with the eggs recall because of *Salmonella* Braenderup (Iowa did not receive any shipments of the recalled eggs, according to FDA).

For more information about ongoing CDC outbreak investigations, visit www.cdc.gov/outbreaks.

For more information about products recalled by FDA, visit www.fda.gov/safety/recalls.

SHL identifies mcr-1 drug resistance gene

All *Salmonella* organisms isolated from Iowa patients are being tested by SHL as part of a nationwide effort to detect foodborne disease outbreaks. This testing includes DNA fingerprinting of these organisms, which are compared with fingerprints of similar bacterial isolates from across the country; this has enabled the U.S. food safety system to identify outbreaks early, find the source and alert the public quickly. Recently, SHL began performing whole genome sequencing of these organisms to detect outbreaks faster and with even more accuracy. These DNA sequence tests can also be used to identify genes that encode antibiotic resistance.

Recently, SHL determined one Iowa *Salmonella* isolate contained the mcr-1 gene. This gene causes resistance to colistin, a last-resort antibiotic used for treating infections with known resistance to other antibiotics. The detection of the mcr-1 gene is a cause for concern because it is found on plasmids (small pieces of DNA that carry genetic instructions from one bacterium to another), and makes other bacteria become resistant to colistin. The gene was first identified in the U.S. in 2016 in a Pennsylvania patient (since then mcr genes have been identified in at least 18 other states). Later in 2016, the CDC established the Antibiotic Resistance Laboratory Network (ARLN) in support of the national action plan for combating antibiotic resistance.

For more information about mcr genes, visit:

<https://www.cdc.gov/drugresistance/tracking-mcr1.html>

For more information about the Antibiotic Resistance Laboratory Network, visit

www.cdc.gov/drugresistance/solutions-initiative/ar-lab-networks.html.

April 21-28 is National Infant Immunization Week

Vaccines are among the most successful and cost-effective public health tools available for preventing disease and death. They not only help protect vaccinated individuals, but also help protect entire communities by preventing and reducing the spread of infectious diseases. Among children born 1994-2016, vaccination will prevent an estimated 381 million illnesses, 24.5 million hospitalizations, and 855,000 deaths over the course of their lifetimes. Because of the success of vaccines in preventing disease, parents may not have heard of some of today's vaccines or the serious diseases they prevent.

These diseases can be especially serious for infants and young children, so it is important to follow the recommended immunization schedule to protect infants and children by providing immunity early in life, before they encounter potentially life threatening diseases.

For more information about National Infant Immunization Week, visit

www.cdc.gov/vaccines/events/niiw/index.html.

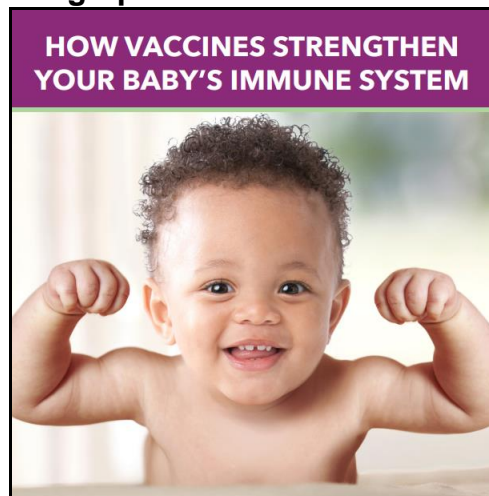
In the news: How your mindset determines your health

www.bbc.com/future/story/20180410-how-your-mindset-determines-your-health

In the news: Doctors battle drug-resistant typhoid outbreak

www.nytimes.com/2018/04/13/health/drug-resistant-typhoid-epidemic.html

Infographic: How vaccines strengthen your baby's immune system



To view in full size, visit

www.cdc.gov/vaccines/parents/infographics/strengthen-baby-immune-system.pdf.

Meeting announcements and training opportunities

The Region VII (Missouri, Iowa, Nebraska and Kansas) Affiliates of the American Public Health Association Meeting will be held May 17-18, 2018, at the Pappajohn Education Center, 1200 Grand Ave., Des Moines. Public health experts will discuss environmental health, communications and developments at the federal level. To register or view an agenda, visit www.iowapha.org/event-2889400.

Have a healthy and happy week!

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